Diffusion and efficiency of ISO 9001 in Portugal: a qualitative and quantitative study from a holistic theoretical perspective

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Abstract

Purpose – the aim of this paper is to analyse the diffusion and efficiency of ISO 9001 on different sectors of activity

Design/methodology/approach – for that purpose, a holistic an integrative theoretical approach was based on the scope of the Contingency theory, the Institutional theory and the Resources-Based View (RBV). This theorethical perspective was used in a broad empirical study, using a qualitative and quantitative methodology, concerning Portuguese companies from different sectors of activity.

Findings – according to the findings from both perspectives, a ranked combination of the named theoretical frame was constructed.

Research limitations/implications – as to the analysis of the efficiency of ISO 9000, one of the limitations of this study lays in the consideration of just two sectors of activity, and another relates to its domestic geographical placement.

Practical implications – this study used the ISO 9001 structure for the interviews and this has revealed very useful for the organizations to grasp the matters inquired.

Originality/value – a relevant contribution to the state of art is achieved through the considered theoretical scope of analysis

Keywords: ISO 9001, performance, efficiency, effectiveness, institutional theory, contingency theory, RBV

Article Classification: Research paper

1. Introduction

Within the Quality Management (QM) paradigm, ISO 9001 is arguably the most influential contribution that there has been to date. The purpose of this paper is to measure the efficiency of ISO 9001 on management, and furthermore, its association with the organization financial performance, under a holistic theoretical approach. So, the paper is arranged as follows: the introduction (1), the holistic theoretical framework from literature review (2), the methodology steps and data observation (3) and at last the conclusions (4).

2. Theoretical framework upon literature review

The holistic theoretical framework consists of the Contingency theory, the Institutional theory and the Resources-Based View.

Contingency theory argues that there is no ideal or optimal way to manage. Wiio and Golhaber (1993) refer contingency related to leadership and Fiedler (1992) says that it is connected to the human resources. Vroom (1988) selects the motivation and involvement of the employees but Smith (1984) refers that the standards of behavior translate some power. In brief, Somsuk (2010) refers it as combination of ideas about the environment of the organizations permanently in adjustments to its subsystems. Adversely inside the organization lies the institutional theory that considers the norms, rules, regulations, procedures and routines as the structure of the organization (Scott 1995). Companies many times seek legitimacy through processes of isomorphism. This becomes a kind of benchmarking (O'Connor *et al*. 2004). Coercive isomorphism is a form of coercion by a third party (State, Trade Unions, clients or suppliers) while the normative relates to the standards across the classes of professionals (Levitt and Nass 1989; Chua and Petty 1999; Lowrey 2005; Leiter 2005). Under an efficiency inspiration RBV theory suggests that the organizations use specialized resources (Wernerfelt 1984) based on knowledge (knowledge based) or based on power (competence based from Hamel and Prahalad 1994). Somsuk (2010) subdivided it into explicit knowledge - information and tacit knowledge - expertise. Teece et al. (1994) and Dirickx and Cool (1989) mentioned the dynamic capacity for change. Thus, business strategy of any organization depends on the resources that are skills (Oliver 1997) and its ability to keep routine production over time (Wernerfelt 1984).

Under the umbrella of these theoretical perspectives the purpose of this paper is to reinforce the state of art as to quality and performance, after Haversjo (2000), Casadesus *et al*. (2008), Chong and Rundus (2004), Martinez and Jimenez (2008), Furtado (2002), Pereira (2005), Ribeiro (2007) and Sampaio (2008) authors who considered that there is some kind of relation between quality and performance.

3. Methodological approach

The methodological approach will consist of a qualitative perspective and a quantitative perspective.

3.1. Qualitative perspective

The methodological approach is a case study (Yin 2009). Initial research questions motivated literature review which enabled some propositions; the interconnection of the literature propositions (assertions) lead to a theoretical model of analysis. A criteria for results interpretation was considered. Data concern the information got through semi structured interviews achieved in the defined sample (units of analysis). Results will be evaluated according to the defined theoretical criteria enabling conclusions.

Research questions, issues and assertions

The initial research questions motivated the literature review defined as issues (Table 3.1). From them propositions arise which contribute for the assertions (a1-a10) construction.

Table 3.1 Issues of content and related assertions

ISSUES	*ASSERTIONS*
Organisation and quality	a1 - the structure of ISO 9001 certified organisations may be more enhanced a2 - ISO 9001 may contribute to a culture reinforcement
ISO 9001 implementation process	a3 - after ISO 9001certification organisations may develop better management practices a4 - with quality certification organisations may register a more motivated human structure a5 - with ISO 9001 quality there is a greater customer loyalty
The effects of ISO 9001 implementation	Non-financial a6 - a large part of quality certifications is driven by the market a7 - the focus of quality must come from top management
The effects of ISO 9001 implementation	Financial *(Immediate)* a8 - costs related to quality may be significant a9 - good practices of management may create conditions for a good management performance *(Mediate)* a- 10 a good management performance can lead to a good financial result

a1-a2 organisations with a lean structure (Kanter 1989) are more likely to implement a quality management system. Dale (1999) argues that these have implemented procedures and Wiio (1993) says that this is something very institutional. So, ISO 9001 certification helps organisations to have a defined structure – a1 (Schein, 1992). Kotter and Heskett (1992) and Lindby *et al.* (1999) suggest that organisations culturally more open are better hosts for quality. It seems that afterwards there is a reinforcement of a quality culture - a2.

a3-a5 top management should involve the employees of the organisation (Mac Adam and Oneill 1999; Kaplan and Norton 1992) who should have a prior knowledge on quality and an ability for change (Dillard and Tinker, 1996). Quality process effects result in expenditures which should be considered an intangible assets (Kaplan and Norton 2001; Heskett *et al.* 1994). Best management practices should emerge - a3. Quality certified organisations may show a more motivated human structure and continuous improvement is a natural event - a4. From this quality process (Crosby 1979; Feigenbaum 1991; Dean and Bowen 1994) a greater customer loyalty will emerge - a5.

a6-a10 some authors argue it, as a competitive advantage (Porter 1987; Senge 1994; Basu 1997; Stern 2001), the market (Oakland and Tanna, 2007) or a customers demand (Zairi 1996), leading to -a6. But quality must come from the top - a7. Expenditure on quality should be handled carefully (Yang 2008, Yang 2008; Shirley 1997) - a8. Good quality management practices may create conditions for a good management performance - a9; the motivation and involvement of the top of the hierarchy (Zairi 1996; Weldeghiorgis 2004; Kaplan and Norton 1992; Walsh 2006) may contribute to a good financial result - a10.

Assertions inter relation under a theoretical scope

Three different management theories: institutional, contingency and resources based view (RBV) will be considered and the logical connection between the assertions are present in figure 1.

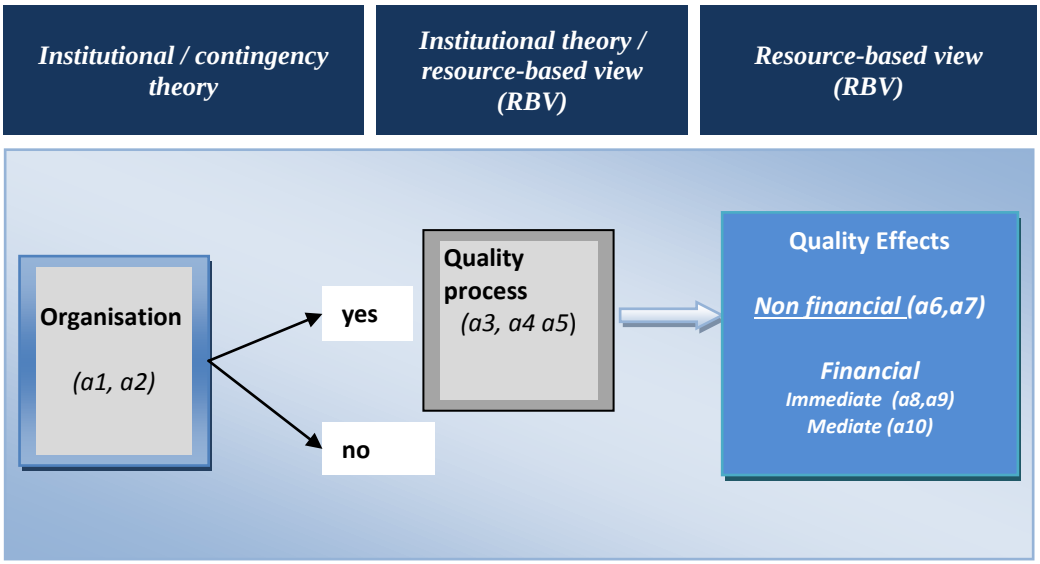


Figure 1 Theoretical approach of the Model of Analysis

Institutional and/or contingency theory (a1- a2): the organisational structure is connected to the cultural nature and these elements may be of an institutional or of a contingent nature.

Institutional theory/RBV (a3 - a5): after ISO 9001 certification, organisations can develop better management practices and a more motivated human structure both will result in greater customer loyalty. These facilities are of an institutional or of a resource perspective.

Resources View - RBV (a6 - a10): a large part of quality certification is driven by the market and the focus of quality should come from top management. The financial effects are a consequence. Costs related to the quality may be significant but its good practices may create conditions for a good management performance.

This model of analysis will be evaluated through the following criteria.

Criteria for results comprehension

From the institutional (Scott 1995; Oliver 1997) to the contingency (Wiio 1993) or to the resources-based view RBV (Wernerfelt 1984). In Figure 2, the different circles

intend to interpret the results highlighted considering their greater or lesser extent, according to the degree of frequency in which the term is used.

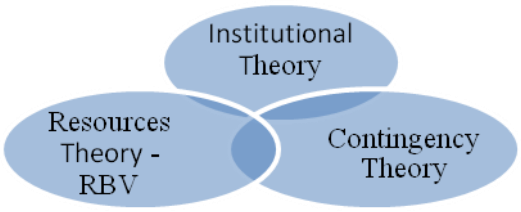


Figure 2 - Criteria for interpreting results

This will allow defining the sequential positioning of theories through the size of the representative image. The intersection of theories means a double or triple simultaneous theoretical interpretation.

Profile of the units of analysis and means of analysis

From the Portuguese website of stock exchange companies CMVM (accessed on February 25, 2010) the financial elements relating to listed companies ISO 9001 certified, were taken. These organisations belong also to Euronext being classified by an ICB acronym meaning – industry classification benchmark. ICB is a detailed and comprehensive structure for the sectors and respective industry, facilitating the comparison across companies through the economic activity classification. The following sectors will be considered: ICB 2350 – Construction (where two companies will be selected) and ICB 5330 – Food and retail (where two companies will be selected). In addition, it was also considered a sector without ISO 9001 certification – ICB 5550, concerning "media" where two companies were selected.

Interviews were developed according to a guide (in two versions for quality certified and not quality certified companies) prepared according to the logical sequence of subjects formatted in the ISO 9001 structure and based on the abovementioned Model of Analysis. Its topics contents were the result of the framework of assertions (a1: a10) created upon literature propositions. Therefore, it is essential to address its key points, identified in 4.5.6.7.8.[1] and related assertions:

Table 3.2 ISO 9001 contents and related assertions

Quality Management System (4)	**QMS**	**a1; a5**
Management Commitment (5)	**MC**	**a2; a3; a7**
Resource Management (6)	**RM**	**a4; a8**
Product Realisation (7)	**P/S**	**a6**
Measurement, analysis and improvement (8)	**MAI**	**a9; a10**

All assertions listed from one to ninth, concern nonfinancial performance and the tenth assertion concerns financial performance. From these the questions for the interview emerged and enabling the construction of the guide that was specifically applied in the following companies.

[1]From ISO 9001 standard points 1 to 3 of the ISO 9001 Standard are respectively: 1. Fundamental concepts of its application, 2. Regulatory framework and 3. Terms and definitions that are not relevant or fundamental for the present research aim.

ISO 9001 certified Companies

Company 1 and Company 2

ICB 5330 - Food and Retail: Food and retail: this ICB in Euronext list, obtained in May 2010, reaches a global value of 12,247,000 Euros, where Company 1 contributes with an income of 6,894,000 Euros, representing 56% of that value, and Company 2 with 5,353,000 Euros, representing the remaining 44%.

Company 3 and Company 4

ICB 2350 - Construction: Company 3 and Company 4 - In the construction sector, which, (from *Euronext*, May 2010) recorded a global value of 7,524,000 Euros in 2008, Company 3, with a turnover of 1,868,000 Euros, represents about 25% and Company 4, with 835,000,000 Euros, represents about 11%.

ISO 9001 non-certified companies

In these companies, as there is not a "cut off" element concerning quality certification, because they are not ISO 9001 certified.

Company 5 and Company 6

ICB 5550 - In 2008 the media industry (from Euronext, May 2010) totalled 1,439,000 Euros, where Company 5 records 270,000 Euros income and represents 19% of that amount, and Company 6, with 122,000 Euros, represents 8%.

Results from the qualitative perspective

From the achieved interviews results were positioned face to the initial research questions and enabled interesting findings as Table 3.3 summarizes.

Table 3.3 Findings from qualitative analysis

Initial research questions	***Findings***
Characteristics and reasons that explain the choice of ISO 9001 quality in the organizations	The market and the size of organization as well as culture are good and steady reasons
Income and expenses associated to the quality process	Usually accounting department of companies can identify them but are not used as a management tool
The register of costs related to quality certification as an intangible assets	No interviewee considered this as somehow important for management
Effects of ISO 9001 implementation on management	If organizations do not possess and ISO 9001 they will not be in market, so, no competitiveness for them
Quality management performance	Usually the policy and objectives of quality help the management through the establishment of good practices

The cross case analysis of results of the interviews were inserted in the theoretical scope according to the defined criteria. The resources theory (RBV) is the more relevant: Knowledge based (Prahalad and Hamel 1990) and dynamic capability models (Teece *et al.* 1994; Dirickx and Cool 1989). As to the institutional theory - mimetic, opinions confirm that the control tools existing in the organisation are mostly associated to the quality process (Levitt and Nass 1989; Chua and Petty 1999; Lowrey 2005; Leiter

2005). Shellhorn (2007) meaning that anything to be managed should be measured. ISO 9001 is an institutional artifact. But all the rules and procedures may be changed due to unexpectable events (contingency of the market).

Former conclusions – about qualitative analysis

It was interesting to note, from the interviews data analysis, that not-certified ISO 9001 companies were those advocating more strongly the connection about quality and performance (perhaps because they did not start such a process…). For ISO certified companies the explanation of their choice was *ad contrario* saying that a non quality certification would become a competitive disadvantage. As a final conclusion one could say when ISO 9001 efficiency is relevant it means that companies have a devoted belief in/on quality.

3.2. Quantitative perspective

A quantitative analysis – OLS, multivariate analysis and an econometric model will be achieved in order to reinforce the results from the qualitative perspective. The relevant hypotheses of analysis were:

Table 3.4 Hypotheses and models of analysis for the quantitative perspective

Hypotheses	Model
H1- ISO 9001 through its implementation, can contribute to higher productivity and increased business value defined in terms of GAV	*AE1: GAV = Function (ISO certification, control variables)*
H2-The increase on sales occurred in certified organizations can be associated to ISO 9001	*AE2: Sales = Function (ISO certification, control variables)*

A descriptive statistical analysis was done as the construction and the food sector having as source of information a database published in Exame Magazine (nowadays Expresso Publishing) compiling financial indicators for the 500 Biggest and Best Business (this was published in 2009). Information included national companies from which the following parts were taken: Global sales (internal and external), results - operating and net staff costs, Assets, Gross Added Value - GAV, personnel attached. The information was gathered per sector analysis. Within these sectors of activities, for the period 2002 to 2009, companies having (or not) ISO 9001 quality certification were identified.

Data was obtained during the period 2002 to 2009[2], and referred to the sectors of Construction and Agricultural - food (agro-food) industry in which representations from both agro industry and food distribution are present. Together these sectors form a representative critical mass of the food area. This sector shows a high level of certification, reaching 52% in 2002 and 71% in 2009. The construction sector shows a significant growth in recent years, representing about 85% in 2009, a value well above the average ones recorded in Europe.

[2] Guia de empresas certificadas. Edição (2009) Cem Palavras.

In the descriptive analysis two outcome variables were also included corresponding to alternative proxies: one for financial performance and another for non-financial performance (productivity). In the context of estimating the impact of certification on performance it was defined a model that was based on a regression of Gross Added Value (as a proxy of the non-financial performance) and Sales (as a proxy of financial performance).The variables of the sample were defined according to the assumptions and the ones belonging to the econometric model were summarized in the table below.

Table 3.5 Definition of the variables

Variable	Definition	Unit
$Sales_{it}$	Annual sales value i, year t	Million Euros
GAV_{it}	Gross Added Value i, year t	Euros
Current $profits_{it}$	Annual operational balance for company i, being the difference between operational income and expenses in period t.	Euros
Net $profits_{it}$	Net profit of company i, being the difference between income and expenses, including operational profits the financial charges and the extraordinary results, in year t.	Euros
Certification ISO_{it}	Binary variable identifying if company i, is certified (assuming value 1) or not (assuming value 0) in year t.	Certified company=1 Non certified company=0
$Asset_{it}$	Set upon f factors of the company i – able to generate financial inflows – year t	Euros
$Productivity_{it}$	Work apparent productivity: ratio between GAV and the number of employees	Euros

A descriptive analysis elaborated from the database elaborated by sector of activity was done. After identifying the sectors of activity with a major relevance of ISO certification – a brief description of the sample will follow.

In the construction sector and considering the 52 (N) firms on the database referred to, only 16 (31%) held ISO certification in 2002. This number has evolved considerably in recent years, standing, in 2009, 44 companies (85%). The temporal analysis (T) is 8 years (2002-2009). This data set constituted a panel data with a sample size (N * T) of 416 observations (52 * 8). However, the used database had some information gaps that forced the resizing of the panel. Considering the dependent variables to be used in the model and the non- existence of 123 observations for the variable sales, these observations were taken out in the econometric analysis. However, it was necessary to remove from the sample 52 observations resulting from the unavailability of data for the year 2007 (missing in the database considered). Thus, the original panel data was reconfigured in an unbalanced panel with about 241 observations.

The sample concerning the sector of the agro-food industry includes a total of 38 companies with observations in the period 2002 to 2009, setting up a panel data with 304 observations. However, and similarly to what happened in the construction sector, the erroneous information in the database eliminated 144 observations. Of those eliminated observations, 38 were a result of lack of data for all companies in the sample, for the year 2007. Thus, the unbalanced panel data results in 157 valid observations included. In 2002, about 52% of the sample (n = 20) were certified, this proportion rising to 71% in 2009, with about 27 companies certified.

This study will focus on the econometric analysis. It was possible to construct an unbalanced panel data with about 52 companies in the construction sector and 38 companies in the agro-industry for a period of eight years (in construction, the sample size will be approximately 52x8 = 416 and agro-industry sample size will be

approximately 38x8 = 304). However, in some years the financial information was not available what reduced the size of the actual sample values shown in the tables of results and drew together an unbalanced[3] panel data. Therefore, in the research an unbalanced panel was used since it does not involve significant changes in the theoretical model[4]. Moreover, the software used (LIMDEP) allows to treat the absence of information as such and not as a zero. The fact of working with a panel of data allows the use of multivariate regression methods more complex than the simple OLS (Ordinary Least Squares Method) or the pooled OLS (Greene, 2003)[5]. In brief, we carried out the following: *Pool OLS, Fixed Effects Model (FEM), Random Effects Model (REM)* but from these only one was adopted. As before mentioned, OLS pool method in practice results from its application to a sample juxtaposed for various periods. The methods FEM and REM (which, in their estimation, consider the temporal evolution of the causal relationship in each individual) conduct to more efficient estimates, if there are, indeed, effects of group that capture the idiosyncratic characteristics.

In this research it is expected that there is no correlation between the observed and intrinsic component of the company and any of the explanatory variables. Thus the fixed effect model will be used. There are a set of statistical procedures and tests that contribute to a greater security in the decision making. Thus, the first test of statistical analysis implemented in this practice is the F-test or global significance that seeks to infer the statistical significance of the artificially set of dummies created to capture the individual-specific effects in panel data. The null hypothesis assumes that these dummies are zero and, as such, there would be no statistically significant idiosyncratic characteristics that should be taken into account in the estimation process. In case of rejection of this null hypothesis, this implies that there are indeed effects of group and thus FEM outlays more efficient estimators. In addition one might consider also the test of the Lagrange Multiplier (LM). Similarly to the F test, this test considers the analysis of the significance of the dummy model compared to the method underlying the REM (where there is no correlation between the individual-specific component and the independent variables which leads to an estimated transformed model different from the FEM). Finally, to test if whether a_{ir} or w_t are correlated or not, with the explanatory variables and thus opt for the method FEM or REM, the Hausman test was performed. The Hausman test compares the fixed effects model with the random effects model, assuming as a null hypothesis that the component is not observed and specific to each individual and did not correlate with the regressors of the model (Hausman, 1978; Park, 2006). If there is evidence of correlation, the null hypothesis is rejected and one should opt for the fixed effects model because the random effects model would produce inconsistent estimators. If the null hypothesis is not rejected, then it is preferable to adopt the random-effects model because it leads to consistent estimators and more efficient than the ones obtained by the method of fixed effects (Greene, 2003). In this analysis there are theoretical reasons that support the choice of the fixed effects model - statistical tests. Accordingly, and given the restrictions imposed by the available data, it is not possible to model a complete listing that captures all these structural effects.

[3] Alternatively, we could have used a balanced panel. A panel of this kind implies that there is complete information for all the observations considered in this case would only be possible by eliminating some of the observations.

[4] For further details, check Greene (2003, pp. 289-290).

[5] As in this case, the non-availability of data over a long period discourages the use of methods of time series analysis as the GMM – Generalized Moment Method (Greene, 2003).

Usually idiosyncratic aspects are captured by the effects of group, something that allows to identify the individual characteristics of each company and which favor the choice of FEM or REM.

Considering the eventual inefficiency of the model, the probability of correlation between the non-stocastic component of the error and any of the independent variables, would result in the non-validity of the statistical inference.

Thus, a more conservative and safe approach was undertaken, selecting a method that cannot produce more efficient estimators and therefore allow statistical inference. Moreover, as already mentioned, the statistical means intended to assist in this choice, mainly Hausman – test, have a high overall statistical test, indicating that for significance levels usually taken as a reference, the fixed effects model is in fact preferable and it shall be used in the estimates of the models in this research.

The theoretical hypotheses

It is recalled that in the present investigation the influence of ISO 9001 on the performance of the organization is to be evaluated. A model of regression considering GAV (as a proxy of management performance and non-financial performance) and Sales (as a proxy of financial performance) was defined. Thus, the generic models presented - (1) and (2) – are respectively

$$AE1: \quad GAV_{it} = Z_i^{'}\alpha + \beta_1 ISO_{it} + X_{it}'\theta + \nu_{it} \quad (1)$$

$$AE2: \quad Sales_{it} = Z_i^{'}\alpha + \beta_1 ISO_{it} + X_{it}'\theta + \nu_{it} \quad (2)$$

Based on the models above described several sub-models were estimated, using alternative control variables, in order to disguise the possible overestimation of the impact of ISO and a further evidence as to the robustness of the results. To evaluate the non-financial performance of ISO 9001, a regression was made on three versions of model (1) trying to capture the impact of certification on Gross Added Value (GAV) and / or productivity (GAV / Workers), controlling the scale of operation of enterprises measured by the assets.

$$AE1-Mod.1: \quad VAB_{it} = \beta_0 + \beta_1 ISO_{it} \quad (1.1)$$

$$AE1-Mod.2: \quad GAV_{it} = \beta_0 + \beta_1 ISO_{it} + \beta_2 Assets \quad (1,2)$$

$$AE1-Mod.3: \quad \text{Pr}oductivity_{it} = \beta_0 + \beta_1 ISO_{it} + \beta_2 Assets + \beta_3 Sales \quad (1.3)$$

Theoretically, it is expected that the impact of ISO 9001 is positive, whether as to GAV or as to productivity. It is also expected that GAV and productivity are higher in large scale organizations because they have size to be more productive. So, it is expected that the assets has a positive impact on the GAV and productivity due to a larger scale of operation which would enable bigger economies of scale and an accrued ability to create value. Similarly, to assess the financial performance of ISO 9001, a regression on three versions of the model (2) was considered in order to capture the impact of certification on the volume of sales and assets controlled by the company's productivity. It is expected that companies with a larger scale of operation and, consequently, greater production capacity, have larger sales volume, as well as productivity should have a positive impact on the company's competitiveness.

In order to estimate the effects of ISO 9001 certification on the performance of an organization, other regression models were considered:

$$AE2-Mod\,1: \quad Sales_{it} = \beta_0 + \beta_1 ISO_{it} \quad (2.1)$$

$$AE2-Mod2: \quad Sales_{it} = \beta_0 + \beta_1 ISO_{it} + \beta_2 Assets \quad (2.2)$$

$$AE2-Mod3:\quad Sales_{it}=\beta_0+\beta_1 ISO_{it}+\beta_2 Assets_{it}+\beta_3 \Pr oductivity_{it} \quad (2.3)$$

As concerns testing hypotheses, it is well known from literature that certification should influence positively the market and it is expected that the estimate for β1 is positive for both sectors.

In model 2.3 it was included in addition to the assets, the productivity which means a way of evaluating the efficiency of enterprises and the extent to which the assets could induce workers' productivity. It has been tested as well whether this could also influence the volume of sales reflecting a higher added value.

Using the two samples (sectors of activity) as a source, the method of fixed effects selected on the basis of the taken theoretical assumptions and on the findings of the achieved statistical tests (Hausman, LM, and F), results are as follows.

Latter Conclusions – about quantitative analysis

Table 3.6 Hypothesis of investigation and associated results

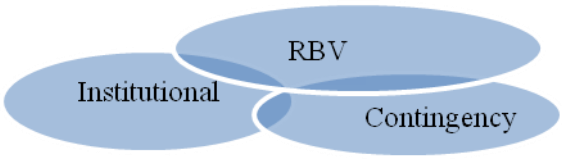
H1 - ISO 9001 implementation may contribute, to a better productivity and accrued business value (defined in terms of Gross Added Value - GAV)	**H2 – Sales accruals in certified companies can be associated to ISO 9001**
On a correlation basis it can be said: There is a strong correlation in quality certified companies between GAV and Sales and between Sales and the assets	On a correlation basis it can be said: There is a strong correlation in quality certified companies between GAV and Sales and between Sales and the assets
Statistics analysis revealed that the average values of Sales and GAV in ISO 9001 certified companies were bigger than sector average; mainly as to companies belonging to the food industry	Statistics analysis revealed that there is a positive association between sales value and quality certification. Sales values, in ISO 9001 certified companies – in both sectors of activity , were bigger than the sector average
The econometric model refers that the effect on management performance, in ISO 9001 certified companies, measured through GAV and productivity, was not significant.	The econometric model reveals that the effect of ISO 9001 on sales was more significant in food sector than in the construction one

Notes: GAV – Gross Added Value

In brief and according to the theoretical scope it can be argued: as to RBV - Sales and Gross added Value and Sales and Assets are correlated variables as well as it seems true for the statistical analysis. As to the Institutional perspective one can say that the best the organization is ruled the best the performance indicators arise and as to the Contingent perspective one must refer the market because a company cannot be predict its vision for sure.

4. Final global conclusion

A major conclusion from the empirical study of this research puts forward a need for ISO 9001 certification, as a resource for companies in order to persist in the market. After all, ISO 9001 is placed in the organizations' environment, under the scope of a theoretical holistic umbrella made up of resources inserted under an institutional perspective, which may be changed at any time by unforeseen events included in the contingent of the present times. The fact of a large company not being certified is an evidence of a competitive disadvantage. According to the evaluation criteria we get the following figure:



This way one could look at ISO itself as a resource (RBV) that implies the good use of many other resources in the organizations (human and material) providing for some rules and procedures about management (institutional) in order to face a dynamic market (contingent).

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